REMARKS

Claim 1 is amended by incorporating subject matter from claims 2 and 3, and claims 2 and 3 are canceled. Further, Applicants note that "the average particle size of the inorganic compound particles is equal to or smaller than the average particle size of the tetravalent metal phosphate-based antimicrobial particles" is supported for example, by original claim 3 and Example 4, wherein the antimicrobial agent has an average particle size of 0.9 μm as shown in Table 1, while the inorganic compound has an average particle size of 0.9 μm as shown in Table 2. No new matter is presented.

I. Response to Claim Rejections - 35 U.S.C. § 102

A. Claims 1, 2, 4-7, 9-12 and 14-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Koji et al (JP 07-304620).

Applicants respectfully traverse the rejection for the reasons of record.

Without conceding the merits of the rejection, claim 1 is amended herein as discussed above. The subject matter of amended claim 1 is not disclosed, taught nor suggested by Koji et al. That is, Koji et al does not disclose, teach nor suggest the feature of the average particle size of the inorganic compound particles is equal to or smaller than the average particle size of the tetravalent metal phosphate-based antimicrobial particles. Thus, Koji et al does not disclose all elements of amended claim 1 and therefore the present invention is not anticipated.

Accordingly, Applicants respectfully request withdrawal of the rejection.

B. Claims 1, 5, 6, 10, 11 and 15-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hideki et al (JP 10-265314).

Applicants respectfully traverse the rejection for the reasons of record.

Without conceding the merits of the rejection, claim 1 is amended herein as discussed above. The subject matter of amended claim 1 is not disclosed, taught nor suggested by Hideki et al. That is, Hideki et al does not disclose, teach nor suggest the feature of the average particle size of the inorganic compound particles is equal to or smaller than the average particle size of the tetravalent metal phosphate-based antimicrobial particles. Thus, Hideki et al does not disclose all elements of amended claim 1 and therefore the present invention is not anticipated.

Accordingly, Applicants respectfully request withdrawal of the rejection.

II. Response to Claim Rejections - 35 U.S.C. § 103

A. Claims 1-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Koji et al (JP 07-304620) in view of Wells et al (U.S. 4,356,280).

Applicants respectfully traverse the rejection for the reasons of record. Additionally, Koji et al does not disclose, teach or suggest the average particle size of tetravalent metal phosphate-based antimicrobial particles as recited in amended claim 1. The Examiner asserts that Koji et al envisaged the tetravalent metal phosphate particle sizes with a particle size much less than 10 μm because Koji et al discloses the calcium phosphate salt system having an average particle size of 1.2 μm (much less than 10 μm). However, the calcium phosphate system in Koji et al does not correspond to the tetravalent metal phosphate-based particles of the present invention. Applicants submit that Koji et al does not teach nor suggest anything about the average particle size of tetravalent metal phosphate-based antimicrobial particles.

Koji et al addresses the problem of discoloration and deterioration of the resin. The tetravalent phosphate-based particles of the present invention cause the problem that an area of equipment that is in running contact with a molding is easily worn when the molding is produced

by adding the tetravalent metal phosphate-based antimicrobial agent to a resin (described at page 1, lines 20-23 of the present specification), while Koji et al addresses the problem of discoloration and deterioration of the resin. When using a calcium phosphate salt system as in Koji et al, the above-mentioned problem in the present invention does not occur. Although Koji et al discloses the use of the calcium phosphate salt system having the average particle size of 1.2 μm, there is no apparent reason to use the average tetravalent metal phosphate particle sizes with a particle size of 0.1 to 5 μm. Therefore, Koji et al does not teach nor suggest the use of the tetravalent metal phosphate-based particles within the claimed range.

Moreover, Koji et al does not describe the relation of the particle size between the tetravalent metal phosphate-based particles and the inorganic compound particles. As admitted by the Examiner, Wells et al does not teach nor suggest the use of the tetravalent metal phosphate particle as an antimicrobial agent. Therefore, one of ordinary skill in the art would not use the tetravalent metal phosphate-based antimicrobial agent which has an average particle size being equal to or larger than the inorganic powder having a Mohs hardness of equal to or less than 6.

Comparing Example 4 and Comparative Example 4 of the present application, Comparative Example 4, which uses an inorganic compound having a larger average particle size than that of the tetravalent metal phosphate-based antimicrobial agent, causes a much greater number of filament breakages than that of Example 4 which uses an inorganic compound having an equal average particle size as that of tetravalent metal phosphate-based antimicrobial agent.

By using the inorganic compound having an average particle size equal to or less than that of the tetravalent metal-based antimicrobial agent, the number of filament breakages can be suppressed. This superior result is unpredictable and would not have been reasonably expected

by those of ordinary skill based on the disclosure of Koji et al and Wells et al, whether taken alone or in combination.

Accordingly Applicants respectfully request withdrawal of the rejection.

B. Claims 1-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hideki et al (JP 10-265314) in view of Wells et al (US 4,356,280).

Applicants respectfully traverse the rejection for the reasons of record. Additionally, Hideki et al in view of Wells et al does not disclose, teach nor suggest the present invention as recited in amended claim 1 for reasons similar to those set forth above with respect to the rejection based on Koji et al in view of Wells et al. That is, Hideki et al does not specifically disclose the maximum particle size of the tetravalent metal phosphate-based particles and the maximum particle size of the inorganic compounds as examples of the powder for fluid improvement for the reasons set forth above and Wells et al does not remedy these deficiencies.

In addition to the above, Hideki et al does not describe an inorganic compound having an average particle size of 0.1 to 5 μm. Hideki et al uses the $CaCO_3$ particles having the average particle size of 9.7 μm which does not fall within the scope of the present invention.

Furthermore, Hideki uses the inorganic compound having the average particle size that is larger than that of the tetravalent metal phosphate-based antimicrobial agent.

Therefore, one skilled in the art who considers the disclosure of Hideki et al would not use an inorganic compound having an average particle size of 0.1 to 5 μm, and would not use an inorganic compound having an average particle size equal to or smaller than that of the tetravalent metal phosphate-based antimicrobial agent. Thus, the present invention is not rendered obvious by Hideki et al and Wells et al, whether taken alone or in combination.

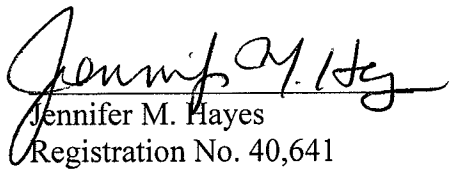
Accordingly, Applicants respectfully request withdrawal of the rejection.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Jennifer M. Hayes
Registration No. 40,641

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

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CUSTOMER NUMBER

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